

Initialise the SMEC
 File: H_FCP_SPI_SMC1.xls
 Author: R. Biggins



Procedure Summary

Objectives

The objective of this procedure is to initialise the Spectrometer Mechanism (SMEC)

Summary of Constraints

n/a

Spacecraft Configuration

Start of Procedure

SPIRE is in SMEC_ON mode

End of Procedure

SPIRE is in SMEC_INIT mode

Reference File(s)

Input Command Sequences

Output Command Sequences

HFSSMCI

Referenced Displays

ANDs	GRDs	SLDs
SA_6_559		
ZAZ08999		
SA_7_559		
SAS0_559		
SA_3_559		

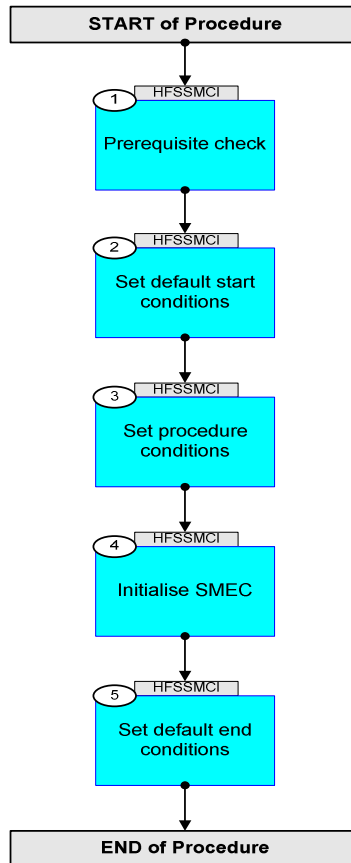
Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
21/11/2007		1	Created	R. Biggins	
15/01/2008		2	Update due to initial testing against the simulator: 2 - TCs updated due to new DB	R. Biggins	

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Procedure Flowchart Overview



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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
Beginning of Procedure				
HFSSMCI Initialise SMEC				
SSID :				
1		Prerequisite check		Next Step: 2
		Verify Telemetry MODE SM00M500	= SMEC_ON	AND=SA_6_559
		Verify Telemetry BSW_SDB_ActProf DEF5F160	= 3 <dec>	AND=ZAZ08999
2		Set default start conditions		Next Step: 3
	ET=+00.00.00 UT=+00.00.00	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SET_OBS_STEP SC003500 0 <hex>	
	ET=+00.00.00 UT=+00.00.00	SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SET_BBID SC001500 80010001 <hex>	
	ET=+00.00.02 UT=+00.00.02	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SET_OBS_STEP SC003500 1 <hex>	
	ET=+00.00.00 UT=+00.00.00	SET_OBSID Command Parameter(s) : OBSERVATION_ID SP00N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SET_OBSID SC000500 B0000000 <hex>	

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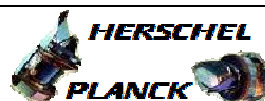
Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.01 UT=+00.00.01	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC003500 0 <hex>	
	ET=+00.00.00 UT=+00.00.00	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC001500 80000000 <hex>	
	ET=+00.00.01 UT=+00.00.01	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC003500 0 <hex>	
	ET=+00.00.01 UT=+00.00.01	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC001500 80020001 <hex>	
	ET=+00.00.02 UT=+00.00.02	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC003500 1 <hex>	
3		Set procedure conditions		Next Step: 4

Initialise the SMEC
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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.01 UT=+00.00.01	RESET_DRCU_COUNTERS RESET_DRCU_COUNTERS TC Control Flags : SSID : 370 GBM IL DSE --- -- ---	SCD00505	
	ET=+00.00.01 UT=+00.00.01	SET_OBSID SET_OBSID Command Parameter(s) : OBSERVATION_ID SP00N500 TC Control Flags : SSID : 370 GBM IL DSE --- -- ---	SC000500 OBS_ID	
	ET=+00.00.01 UT=+00.00.01	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : SSID : 370 GBM IL DSE --- -- ---	SC003500 0 <hex>	
	ET=+00.00.01 UT=+00.00.01	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : SSID : 370 GBM IL DSE --- -- ---	SC001500 80000000 <hex>	
	ET=+00.00.01 UT=+00.00.01	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : SSID : 370 GBM IL DSE --- -- ---	SC003500 0 <hex>	
	ET=+00.00.00 UT=+00.00.00	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : SSID : 370 GBM IL DSE --- -- ---	SC001500 82000001 <hex>	

Initialise the SMEC
 File: H_FCP_SPI_SMC1.xls
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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.02 UT=+00.00.02	SET_OBS_MODE SET_OBS_MODE Command Parameter(s) : OBSERVING_MODE SPD2N500 TC Control Flags : GBM IL DSE ---- -- -- SSID : 370	SC002500 205 <hex>	
		Verify Telemetry MODE SM00M500	= SMEC_INIT	AND=SA_7_559
4		Initialise SMEC		Next Step: 5
	ET=+00.00.01 UT=+00.00.01	Send DRCU command to SetSpeedFwdOffset SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE ---- -- -- SSID : 370	SCD06505 90557D00 <hex> 0 <hex> (Def)	
		Verify Telemetry SMECFFOFFSET SMS0A515	= 7D00 <hex>	AND=SAS0_559
	ET=+00.00.15 UT=+00.00.15	Send DRCU command to SetStrajEndPosition SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE ---- -- -- SSID : 370	SCD06505 90450000 <hex> 0 <hex> (Def)	
		Verify Telemetry SCANEND SMS1P515	= 0.0 mm	AND=SAS0_559
	ET=+00.00.00 UT=+00.00.00	Send DRCU command to SetStrajStartPosition SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE ---- -- -- SSID : 370	SCD06505 90460000 <hex> 0 <hex> (Def)	
		Verify Telemetry SCANSTART SMS0P515	= 0.0 mm	AND=SAS0_559

Initialise the SMEC
 File: H_FCP_SPI_SMC1.xls
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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.01 UT=+00.00.01	Send DRCU command to SetStrajMode SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 90490001 <hex> 0 <hex> (Def)	
		Verify Telemetry SCANMODE SMS2M515	= 1 <hex>	AND=SAS0_559
	ET=+00.00.01 UT=+00.00.01	Send DRCU command to SetStrajMode SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 90490004 <hex> 0 <hex> (Def)	
		Verify Telemetry SCANMODE SMS2M515	= 4 <hex>	AND=SAS0_559
	ET=+00.00.01 UT=+00.00.01	Send DRCU command to SetStrajMode SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 90490001 <hex> 0 <hex> (Def)	
		Verify Telemetry SCANMODE SMS2M515	= 1 <hex>	AND=SAS0_559
	ET=+00.00.01 UT=+00.00.01	Send DRCU command to SetRateLimit SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 9051012C <hex> 0 <hex> (Def)	
		Verify Telemetry SMECRATELIMIT SMS1B515	= 012C <hex>	AND=SAS0_559

Initialise the SMEC
File: H_FCP_SPI_SMCi.xls
Author: R. Biggins



Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.01 UT=+00.00.01	Send DRCU command to SetSIntegrationLimit SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 904E07D0 <hex> 0 <hex> (Def)	
		Verify Telemetry SMECINTLIMIT SMS3N515	= 07D0 <hex>	AND=SAS0_559
	ET=+00.00.01 UT=+00.00.01	Send DRCU command to SetSderivFilter SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 904C07D0 <hex> 0 <hex> (Def)	
		Verify Telemetry SMECDFILT SMS1N515	= 07D0 <hex>	AND=SAS0_559
	ET=+00.00.01 UT=+00.00.01	Send DRCU command to SetSkd SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 904B02BC <hex> 0 <hex> (Def)	
		Verify Telemetry SMECKD SMG1N515	= 02BC <hex>	AND=SAS0_559
	ET=+00.00.01 UT=+00.00.01	Send DRCU command to SetSLoopMode SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 90440001 <hex> 0 <hex> (Def)	
		Verify Telemetry SMECLOOPMODE SMS1M515	= 1 <hex>	AND=SAS0_559

Initialise the SMEC
File: H_FCP_SPI_SMC1.xls
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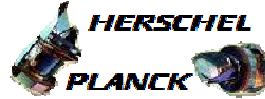
Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.02 UT=+00.00.02	Send DRCU command to SetStrajEndPosition SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 904503E8 <hex> 0 <hex> (Def)	
		Verify Telemetry SCANEND SMS1P515	= 1.0000 mm	AND=SAS0_559
	ET=+00.00.05 UT=+00.00.05	Send DRCU command to SetSkp SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 904A07D0 <hex> 0 <hex> (Def)	
		Verify Telemetry SMECKP SMG0N515	= 07D0 <hex>	AND=SAS0_559
	ET=+00.00.00 UT=+00.00.00	Send DRCU command to SetSki SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 904D03E8 <hex> 0 <hex> (Def)	
		Verify Telemetry SMECKI SMG2N515	= 03E8 <hex>	AND=SAS0_559
	ET=+00.00.01 UT=+00.00.01	DISABLE_SELECTION DISABLE_SELECTION Command Parameter(s) : FRAMEID_DISABLSELECTION SPD2N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD05505 10 <hex>	

Initialise the SMEC
 File: H_FCP_SPI_SMCi.xls
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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.00 UT=+00.00.00	SET_TABLE Command Parameter(s) : TABLEID_SETTAB SPB0N500 TABLESIZE_SETTAB SPB1N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SET_TABLE SCB00500 a <hex> c <hex>	
	ET=+00.00.00 UT=+00.00.00	Execute Telecommand Command Parameter(s) : TABLEID_UPDTAB SPB5N500 INDEX_UPDTAB SPB6N500 N_UPDTAB SPB7N500 DATA_UPDTAB SPB8N500 DATA_UPDTAB SPB8N500 DATA_UPDTAB SPB8N500 DATA_UPDTAB SPB8N500 DATA_UPDTAB SPB8N500 DATA_UPDTAB SPB8N500 DATA_UPDTAB SPB8N500 DATA_UPDTAB SPB8N500 DATA_UPDTAB SPB8N500 DATA_UPDTAB SPB8N500 DATA_UPDTAB SPB8N500 DATA_UPDTAB SPB8N500 DATA_UPDTAB SPB8N500 TC Control Flags : GBM IL DSE --Y -- --- SSID : 370	UPDATE_TABLE SCB02500 A <hex> 0 <hex> C <hex> 0 <hex> 0 <hex> 1 <hex> 1 <hex> 1 <hex> 1 <hex> 1 <hex> 1 <hex> 0 <hex> 1 <hex> 0 <hex> 0 <hex> 0 <hex>	
	ET=+00.00.01 UT=+00.00.01	ENABLE_SELECTION Command Parameter(s) : FRAMEID_ENABLESELECTION SPD7N505 SELSID_ENABLESELECTION SPD8N505 TABLED_ENABLESELECTION SPD1N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	ENABLE_SELECTION SCD04505 10 <hex> 1410 <hex> A <hex>	
	ET=+00.00.01 UT=+00.00.01	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SET_OBS_STEP SC003500 0 <hex>	

Initialise the SMEC
File: H_FCP_SPI_SMC1.xls
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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.00 UT=+00.00.00	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE --- -- SSID : 370	SC001500 80000000 <hex>	
	ET=+00.00.01 UT=+00.00.01	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- SSID : 370	SC003500 0 <hex>	
	ET=+00.00.00 UT=+00.00.00	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE --- -- SSID : 370	SC001500 89090001 <hex>	
	ET=+00.00.01 UT=+00.00.01	Send DRCU command to set BSM frame sampling SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- SSID : 370	SCD06505 91C0000A <hex> 0 <hex> (Def)	
		Verify Telemetry MCUTM12TSAMPLE SM_2H515	= 0.00 ms	AND=SA_3_559
	ET=+00.00.00 UT=+00.00.00	Send DRCU command to set SMEC frame sampling SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- SSID : 370	SCD06505 91C00000 <hex> 0 <hex> (Def)	
		Verify Telemetry MCUTM10TSAMPLE SM_0H515	= 0.00 ms	AND=SA_3_559

Initialise the SMEC
 File: H_FCP_SPI_SMC1.xls
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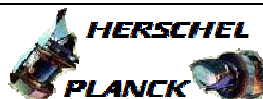
Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.01 UT=+00.00.01	Send DRCU command to set MCU eng. frame sampling SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 91C40000 <hex> 0 <hex> (Def)	
		Verify Telemetry MCUTM14TSAMPLE SM_4H515	= 0.00 ms	AND=SA_3_559
	ET=+00.00.00 UT=+00.00.00	Send DRCU command to set MCU Test Pattern frame sampling SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 91C50000 <hex> 0 <hex> (Def)	
		Verify Telemetry MCUTM15TSAMPLE SM_5H515	= 0.0 ms	AND=SA_3_559
	ET=+00.00.01 UT=+00.00.01	Send DRCU command to set BSM frame sampling SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 91C20025 <hex> 0 <hex> (Def)	
		Verify Telemetry MCUTM12TSAMPLE SM_2H515	= 15.54 ms	AND=SA_3_559
	ET=+00.00.00 UT=+00.00.00	Send DRCU command to SetFrameNumber (to continuous) SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SCD06505 91C3FFFF <hex> 0 <hex> (Def)	
		Verify Telemetry MCUFRAMES SMD7N515	= FFFF <hex>	AND=SA_3_559

Initialise the SMEC
File: H_FCP_SPI_SMC1.xls
Author: R. Biggins



Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
5		Set default end conditions		Next Step: END
	ET=+00.00.00 UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- -- SSID : 370	SC003500 0 <hex>	
	ET=+00.00.01 UT=+00.00.01	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE --- -- -- SSID : 370	SC001500 80000000 <hex>	
	ET=+00.00.02 UT=+00.00.02	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- -- SSID : 370	SC003500 0 <hex>	
	ET=+00.00.00 UT=+00.00.00	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE --- -- -- SSID : 370	SC001500 80030001 <hex>	
	ET=+00.00.02 UT=+00.00.02	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- -- SSID : 370	SC003500 1 <hex>	

Initialise the SMEC
 File: H_FCP_SPI_SMC1.xls
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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.00 UT=+00.00.00	SET_OBSID SET_OBSID Command Parameter(s) : OBSERVATION_ID SP00N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC000500 B0000000 <hex>	
	ET=+00.00.01 UT=+00.00.01	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC003500 0 <hex>	
	ET=+00.00.00 UT=+00.00.00	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE --- -- --- SSID : 370	SC001500 80000000 <hex>	

End of Procedure